

**C L A I M S :**

1. A method for cooling extruded plastic foil hose, which comprises the steps:
  - 5 (a) feeding a pressurized coolant, mainly cooling air, to an unstabilized section of the foil hose, just exiting from a drawing aperture of an apparatus for continuous extrusion of the blown foil hose, mainly extruder nozzle;
  - (b) directing the pressurized coolant through tangential inlets in tangential coolant streams on the internal and/or external surface of the unstabilized section of the foil hose in order to cool internally and/or externally  
10 the unstabilized section of the foil hose and thereby to stabilize it;
  - (c) generating at least one spiral coolant stream from the tangential coolant stream between the coolant inlet and outlet by using a centrifugal force affecting the coolant streams along the internal and/or external surface of the foil hose, and by using density and pressure differences between  
15 various parts of the coolant streams;
  - (d) providing a ring channel for the external spiral coolant stream by using a tubular skirt at a radial distance from the external skirt surface of the foil hose, in the case of the external cooling.
2. A method as claimed in claim 1, wherein the internal and external spiral  
20 coolant streams are applied simultaneously, and preferably in a counter-current.
3. A method as claimed in claim 1, wherein during or immediately after the final stage of the cooling and stabilizing step, the tubular foil hose is cut up longitudinally at least of two places forming flat foil stripes.
- 25 4. An apparatus for cooling extruded foil hoses, that is arranged in the area of an extruder nozzle drawing aperture, said apparatus comprises:
  - (a) an internal and/or external cooling unit arranged in an internal space of the foil hose to be produced and along its external skirt, respectively,

- 5 (b) at least one inlet for the coolant connected to a coolant supply, and an outlet for each internal and/or external cooling unit; said coolant inlet is arranged tangentially to the foil hose to feed the coolant, particularly cooling air, in tangential streams for generating spiral coolant streams from the tangential coolant streams between the coolant inlet and outlet to cool internally and/or externally the unstabilized section of the foil hose by using a centrifugal force affecting the coolant streams along the internal and/or external surface of the foil hose, and by density and pressure differences between various parts of the coolant streams;
- 10 (c) a ring channel for external spiral coolant stream, which is delimited by the external skirt surface of the foil hose to be cooled from the inside and by a tubular element from the outside, in case of the external cooling unit.
- 15 5. An apparatus as claimed in to Claim 4, characterized in that the ring channel of the external cooling unit is delimited from the outside by a skirt and/or a conical funnel.
- 20 6. An apparatus as claimed in Claim 4 or 5, characterized in that the external cooling unit has a coolant distribution drum mounted coaxially on the extruder nozzle, whose tangential inlet communicates with a slot-like duct coaxially surrounding the foil hose, which latter joins the ring channel.
- 25 7. An apparatus as claimed in any of Claims 4-6, characterized in that the internal cooling unit is equipped with an air distribution unit, which is provided with nozzles having tangential air inlets along an internal perimeter of the foil hose, which are connected to a pressurized coolant supply and whose radial position is adjustable within the internal space of the foil hose; furthermore, the internal space is provided, at the end opposite to the nozzles, with a removal pipe open at its exhaust end to remove coolant, the other end of which is connected to a vacuum supply.